

Applicants : Betty A. Diamond and Bruce T. Volpe  
Appn. No. : 10/574,994  
Filing Date January 31, 2007  
Page 2 of 6

Amendments to the Claims:

Please cancel Claims 1-3, 5-6, 9, 21-22 and 44 without prejudice or disclaimer, and add new Claims 53-55 as set forth below.

1-22. (Canceled)

23. (Previously presented) A method of inhibiting progression of cognitive dysfunction in a mammal exhibiting or at risk for lupus-induced cognitive dysfunction, the method comprising treating the mammal with an agent that prevents binding of an anti-ds-DNA antibody to an NR2 subunit of an NMDA receptor of a neuron.

24. (Original) The method of claim 23, wherein the agent is an antibody or an aptamer that binds to the NMDA receptor on a neuron but does not induce neuronal death.

25. (Original) The method of claim 23, wherein the neuron is in the hippocampus.

26-44. (Canceled)

45. (Previously presented) The method of claim 23, wherein the agent is administered to the brain of the mammal.

46. (Previously presented) A method of determining whether a patient is at risk for lupus-induced cognitive dysfunction, the method comprising determining whether

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Appn. No. : 10/574,994  
Filing Date January 31, 2007  
Page 3 of 6

the patient has anti-NR2 antibodies, wherein the presence of anti-NR2 antibodies indicates that the patient is at risk for lupus-induced cognitive dysfunction.

47. (Previously presented) The method of claim 46, wherein the cerebrospinal fluid is tested for the presence of anti-NR2 antibodies.

48. (Previously presented) The method of claim 46, wherein the peripheral blood is tested for the presence of anti-NR2 antibodies.

49. (Previously presented) The method of claim 46, the method further comprising treating the patient with an agent that prevents binding of an anti-NR2 antibody to an NR2 subunit of an NMDA receptor of a neuron if the patient is at risk for lupus-induced cognitive dysfunction.

50. (Previously presented) The method of claim 49, wherein the agent is at least one peptide or mimetic that comprises an amino acid sequence of X1-Trp-X1-Tyr-X2 (SEQ ID NO:1), wherein X1 represents Asp or Glu, and X2 represents Gly or Ser.

51. (Previously presented) The method of claim 50, wherein the peptide or mimetic comprises Asp-Trp-Glu-Tyr-Ser (SEQ ID NO:1).

52. (Previously presented) The method of claim 46, the method further comprising treating the patient with an agent that inhibits death of a neuron that comprises a bound anti-ds-DNA antibody on an NR2 subunit of an NMDA receptor on the neuron if the patient is at risk for lupus-induced cognitive dysfunction.

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Filing Date January 31, 2007  
Page 4 of 6

53. (New) The method of claim 23, wherein the agent comprises an amino acid sequence of X1-Trp-X1-Tyr-X2 (SEQ ID NO:1), wherein X1 represents Asp or Glu, and X2 represents Gly or Ser.

54. (New) The method of claim 23, wherein the agent comprises D-amino acids.

53. (New) The method of claim 23, wherein the agent comprises Asp-Trp-Glu-Tyr-Ser (SEQ ID NO:1).